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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,972	05/30/2002	Robert C.U. Yu	D/A2002Q	4059

25453 7590 07/30/2004

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EXAMINER
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HARAN, JOHN T

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/063,972	YU, ROBERT C.U.	
	<b>Examiner</b>	<b>Art Unit</b>	
	John T. Haran	1733	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/2/02</u>  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of species C in the reply filed on 7/7/04 is acknowledged.

***Specification***

2. The disclosure is objected to because of the following informalities: The first paragraph of the specification has blanks for copending applications that should be filled in.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 4, 6-24 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Yu et al (U.S. Patent 6,652,691).

The applied reference has a common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome

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either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Yu et al discloses a flexible belt seam treatment apparatus that includes a support element such as a tube (90) with a smooth surface for supporting a belt seam region; an infrared heat source (103) in optical communication with optics to form a heat spot; and a pressure applicator such as a pressure wheel (105) for exerting pressure on a belt seam region (Column 13, line 61 to Column 14, line 42; Column 17, lines 28-35; Figures 4-5). Yu et al anticipates claim 1.

Regarding claim 2, Yu teaches the smooth tube can be metallic which is abhesive (not adhesive) (Column 14, lines 40-41).

Regarding claim 4, Yu teaches a pressure wheel (Column 14, line 2).

Regarding claim 6, Yu teaches a tubular support with concave pressure wheel (See Figure 5).

Regarding claim 7, Yu teaches the pressure wheel having an abhesive coating such as Teflon (Column 20, lines 51-54).

Regarding claim 8, the pressure wheel of Yu is capable of exerting the claimed pressure.

Regarding claim 9, the infrared heat source is capable of heating the material worked upon to the desired temperature range (Column 17, lines 19-25).

Regarding claims 10-12, 17, and 21, Yu teaches the claimed sources of infrared energy.

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Regarding claims 13-15, Yu teaches the optics are capable of creating any desired shape for the infrared radiation (Column 15, lines 32-34 and 52-53).

Regarding claim 16, as noted above Yu teaches having a smooth tube with an abhesive surface and a pressure wheel with a concave outer surface. Yu also teaches a vacuum hold system (Column 14, lines 11-32).

Regarding claim 18, Yu teaches a phase shift mirror for altering the polarization of the radiation (Column 15, lines 32-34).

Regarding claim 22, Yu teaches having a reflector for focusing the irradiation (Column 17, lines 28-35).

Regarding claims 19-20 and 23-24, Yu teaches actuators for moving the wheel and infrared source (Column 19, lines 62-67).

Regarding claim 26, Yu teaches a vacuum source (Column 14, lines 11-32).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 5, 25, and 27-29 are rejected under 35 U.S.C. 103(a) as being obvious over Yu et al (U.S. Patent 6,652,691).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Regarding claim 3, Yu et al teaches the tube is smooth and can be metallic or plastic but is silent towards the tube being an adhesive fluoropolymer. One skilled in the art would have readily appreciated that it would be undesirable to have the belt adhere to the tube as result of the infrared heating. It is noted that Yu et al appreciated such a problem for the pressure wheel by having an adhesive Teflon coating. One skilled in the art would have readily appreciated using an adhesive plastic such as a fluoropolymer for the material of the tube in order to avoid adhering the belt to the tube. It would have been obvious to one of ordinary skill in the art at the time the invention

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was made for the tube to be an adhesive fluoropolymer in the apparatus of Yu et al in order to avoid undesirable sticking of the belt to the tube.

Regarding claim 5, one skilled in the art would have readily appreciated utilizing the apparatus of Yu on a seamed region that is supported on a planar support and to therefore use a pressure wheel that is right cylindrical rather than arcuate. It would have been obvious for the support to be planar and the pressure wheel to have a right cylindrical surface.

Regarding claim 25, Yu et al is silent towards the infrared source extending across the entire seam region, but such would have been obvious in order to ensure adequate exposure of the seam region to the infrared energy and to eliminate the need to move the seam region and heat source relative to one another.

Regarding claims 27-29, one skilled in the art would have readily appreciated it is well known and conventional to have a clamping device such as a bar to hold seam region in place that is operated by gravity or an actuator and it would have been obvious to include such in the apparatus of Yu et al.

### ***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

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patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claim 9 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 12 of copending Application No. 10/063,974 (US 2003/0222078) and over claim 12 of copending Application No. 10/693,522 (US 2004/0056014). Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 9 of the current application reads on the pressure source and heat source being one and the same and therefore encompasses claim 12 of the copending applications.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### **Conclusion**

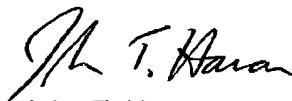
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John T. Haran** whose telephone number is (571) 272-1217. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John T. Haran  
Examiner  
Art Unit 1733